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10/709,385

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EXAMINER

PANG, ROGER L

ART UNIT

PAPER NUMBER

3681

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/709,385 | <b>Applicant(s)</b><br>STEEN ET AL. |  |
|                              | <b>Examiner</b><br>Roger L. Pang     | <b>Art Unit</b><br>3681             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9, 10, 12 and 19 is/are rejected.
- 7) ☒ Claim(s) 6-8 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The following action is in response to the amendment filed for application 10/709,385 on April 2, 2007.

#### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Sweden on October 31, 2002. It is noted, however, that applicant has not filed a certified copy of the PCT (PCT/SE02/01992) application as required by 35 U.S.C. 119(b).

#### ***Information Disclosure Statement***

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 9-10, 12 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Rauch '510. With regard to claim 1, Rauch teaches a vehicle comprising a drivetrain, having an internal combustion engine 36 and a gearbox 14 coupled to the internal combustion engine, and a control unit 16 for automatic gear selection as a function of the current rotational speed of an input shaft to the gearbox ( $V_{sp} = IS \times GR$ ), in which the control unit has a first operating mode (cold start) with a first working speed range defined by a first lower limit A3 for downshifting to a gear with a higher transmission ratio, wherein the control unit has a second operating mode with a second working speed range defined by a second lower limit A1 for downshifting to a gear with a higher transmission ratio, in which the second limit A1 is lower than the idling speed (1200rpm for cold start) of the internal combustion engine and is equal to a lower rotational speed than the first lower limit ( $A1 < A3$ ). With regard to claim 2, Rauch teaches the vehicle, wherein the control unit comprises a memory unit in which a representation of the highest permitted gear in the second working speed range is stored (the highest gear in the transmission). With regard to claim 3, Rauch teaches the vehicle, wherein the control unit is configured to select the highest permitted gear or a gear lower than the highest permitted gear when the control unit has assumed the second operating mode (i.e. 4-3 downshift). With regard to claim 4, Rauch teaches the vehicle, wherein the control unit is coupled to elements 40 for indicating the selection of first or second operating mode. With regard to claim 5, Rauch teaches

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the vehicle, wherein the vehicle contains an engine management unit 20, which comprises an idling speed regulator (throttle), the idling speed regulator being designed to control the torque delivered from the internal combustion engine when the vehicle is operated at idling speed in the second operating mode (engine is held at idling during closed throttle = engine control). With regard to claim 9, Rauch teaches the vehicle, wherein the vehicle contains elements (parts of 16) for establishing that the internal combustion engine is delivering sufficient torque for operation of the vehicle at an operating speed equal to a rotational speed of a gearbox input shaft below the first limit. With regard to claim 10, Rauch teaches the vehicle, wherein the drivetrain contains a clutch unit 48 arranged between the internal combustion engine and the gearbox, the drivetrain being divided into a first part up to the clutch unit and comprising the internal combustion engine and a second part from the clutch unit onwards and comprising the gearbox, characterized in That the second limit A1 for downshifting is equal to a speed lower than the idling speed (1200rpm during cold start) of the internal combustion engine, that the vehicle contains a sensor TSS for measuring the current rotational speed, and that the sensor is designed to measure the rotational speed in the second part of the drivetrain, the clutch unit being designed to absorb a speed differential between the rotational speed of the first and second parts of the drivetrain where insufficient torque has been delivered by the internal combustion engine, following which a rotational speed equal to the second downshifting limit is reached and downshifting is permitted. With regard to claim 12, Rauch teaches the vehicle, wherein the elements for indicating selection of the first or second operating mode comprise a throttle lever forming part of the vehicle, the control unit being designed to assume its second operating mode should the throttle lever be released into an idling position whilst in motion (and while it is in the cold start

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condition). With regard to claim 19, Rauch teaches the vehicle, which the second working speed range is larger than the first working speed range (due to the second downshift point being lower than the first downshift point; see paragraph 6 of the present invention specification).

### *Allowable Subject Matter*

Claims 6-8 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Response to Arguments*

With regard to the Rauch art:

Claim 1:

- the automatic gear selection is controlled as a function of the current rotational speed of an input shaft of the gearbox. Rauch uses the vehicle speed (designated Vsp in the rejection) to control the gear selection. Since Vsp is equal to input shaft speed (designated IS) multiplied by the current gear ratio (designated GR), then Rauch does teach of the transmission control as a function of the input shaft speed. Vsp, IS and GR are common abbreviations used in the art.

The examiner apologizes for the confusion.

- the “first operating mode” of Rauch is the “cold start mode” (of Rauch). This is a label used to identify the first operating mode of Rauch, and not something implied by the present

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application. In the “first operating mode”, Rauch teaches a cold start mode, wherein the downshift point of this “first operating mode” A3 is higher than the downshift point A1 of the “second operating mode.”

- During a cold start, the idle conditions are set high (Col. 5), therefor the downshift point of the second operating mode is lower than the idling speed (here, “idling speed” is the idling speed during cold start condition, i.e. the first operating mode) and is equal to a lower rotational speed than the first lower limit.

Rauch may operate differently than the current invention, but as discussed in the rejections, and above, Rauch teaches the invention as currently claimed.

Claim 2:

- Rauch teaches a second working speed range (see above)
- Applicant only claims a memory unit which stores a representation of a highest permitted gear in the second working speed range. Rauch teaches a memory storing a highest permitted gear (Fig. 4) during the second speed range. There aren't any other limitations being claimed in this claim (i.e. why this is significant, or how it relates to the limitations that have already been claimed).

Claim 3:

- Rauch teaches the second operating mode (Fig. 4) and conditions associated therewith (i.e. selecting a highest permitted gear or a gear lower than the highest permitted gear when the control has assumed the second operating mode). Again, there is a highest permitted gear (which may be first gear), and the transmission can shift into that gear, or second gear, or even third gear.

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Claim 4:

- Rauch teaches a selection of first and second modes (see above).

Claim 5:

- Rauch teaches a selection of a second mode (Step 102: NO).

Claim 9:

- Rauch teaches the rotation speed of the input shaft, since the vehicle speed is equal to the input shaft speed multiplied by the current gear ratio.

Claim 10:

- Rauch teaches a first and second lower limit, and the conditions which flip between the two modes (Fig. 7).

Claim 12:

- Please see arguments with regard to claim 10.

Claim 19:

- applicant teaches that a lower shift point is equal to a larger working range (paragraph 6 of the present application). Since Rauch teaches a lower downshift point during the second operating mode, then it also has a larger working range.

Applicant's arguments have been considered, but are not persuasive.



### FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. The central facsimile number is (571) 273-8300. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

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I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on \_\_\_\_\_ (Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_  
\_\_\_\_\_

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L. Pang whose telephone number is 571-272-7096. The examiner can normally be reached on 5:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Roger L Pang  
Primary Examiner  
Art Unit 3681

April 25, 2007